

One section is temptingly headed "Replication and the Origin of Life"; in this the authors review the concepts of the chemical basis of life. Apparently, starting from seas rich in organic molecules, it is possible to demonstrate that after the cooling of the earth, amino-acids and adenine could be formed. Having previously described the evidence that nucleic acids can replicate, it is an easy step to the formation of living organisms; indeed the authors critically discuss the hypothesis that a molecule of nucleic acid may have been the first living thing on earth.

Cell Heredity can be recommended as worthy of its place on the bookshelf and, despite the critical approach of the authors, it will appeal to the scientifically-minded general reader who wants to acquire some knowledge of the exciting subject of molecular genetics. I do not think, however, that this book will be fully appreciated by the audience envisaged by the authors, which includes college students; a certain degree of scientific knowledge is essential for this exhilarating book to be fully appreciated.

D. A. W.

Stern, Curt. *Principles of Human Genetics*. San Francisco and London, 1960. Freeman. Pp. x + 753. Price 68s.

THIS EXCELLENT BOOK was first published in 1950. The second edition has been thoroughly revised and there are now six more chapters. The main additions reflect the major advances in the subject: they include much additional material on linkage and crossing over; far more important, there is a new chapter on the genetical hazards of radiation; there are two new chapters on heredity and environment; and there is more information on topics such as selection and polymorphism, selection in civilization and medical genetics.

The writing is clear and economical. There are 265 figures, most of them informative even if not elegant. The book includes of course more than the *principles* of human genetics, since much detailed factual knowledge is given. Indeed, it is a valuable reference book especially since it is well documented. Apart from the subjects already mentioned there are balanced reviews

on topics ranging from "genetic counseling" and consanguinity to race and race mixture.

On eugenics Dr. Stern is, like most other geneticists, cautious. He stresses "the tentative nature, if not the often complete lack, of knowledge about the genetic basis of many differences among human beings." As a specific example of his approach, here is a passage from one of his chapters on heredity and environment:

Results such as those reported in this chapter frequently justify an optimistic attitude, in spite of the fatefulness which the term heredity seems to imply. If the concordance of 80 per cent among identical twins for schizophrenia, as opposed to only 13 per cent in nonidenticals, emphasizes the influence of heredity, it is, nevertheless, highly important that in 20 per cent of identical twins, one of them was spared by the disease. If we can find out why the same genetic constitution in 20 per cent of the twin partners did not express itself by the symptoms of mental illness, we can hope to use our knowledge in saving still more individuals with these genotypes from breakdown. Instead of regarding the results of nature-nurture studies as static, they can serve the dynamic purpose of continuously fitting more suitable environments to the different genotypes.

This book provides, in a form not available anywhere else, a remarkably complete survey of our present knowledge on the whole range of subjects covered. It should be on the shelves of everyone seriously concerned with human genetics.

S. A. B.

Wagner, A. R. *English Ancestry*. London 1961. Oxford University Press (Oxford Paperbacks). Pp. 176. Price 6s.

THIS IS A shortened version of *English Genealogy** by Sir Anthony Wagner, Garter King of Arms. It is a scholarly, interesting and entertaining social history of England as seen through the eyes of a genealogist.

It has been calculated that all Englishmen to-day, except recent immigrants, share the genes of King Alfred and his English contemporaries. Some Englishmen will possess more of King Alfred's genes than others, depending on the degree of "assortative mating" in the past but Sir Anthony's history makes clear the extent of the intermingling of social classes in the his-

* See THE EUGENICS REVIEW, 1960 52, 161.